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A scheme of approximation solution of problem 1 rj Lmax

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Abstract

The strongly NP-hard scheduling problem of minimizing the maximum lateness on one machine subject to job release dates is under study. We present a general scheme of approximation solution of the problem which is based on searching for a given problem instance another instance, closest to the original in some metric and belonging to a known polynomially solvable class of instances. For a few concrete variants of the scheme (using different polynomially solvable classes of instances) some analytic formulas are found that make it possible, given a problem instance, to compute easily an upper bound on the absolute error of the solution obtained by a chosen scheme. © Pleiades Publishing, Ltd. 2007.

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